

REMARKS

In this reply, no claims have been amended, canceled or added. Therefore, claims 1-26 remain pending for consideration on the merits.

In the Office Action mailed September 25, 2003, claims 1-26 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,246,672 to Lumelsky. This rejection is respectfully traversed for at least the reasons given below.

The Office Action incorrectly asserts that col. 8, lines 16-55, col. 11, lines 8-65, and col. 19, line 33 to col. 20, line 52 of Lumelsky discloses the present invention as recited in claims 1 and 11. However, in these quoted portions, Lumelsky describes a scheme in which each personal radio station server (PRSS) stores multiple subscriber's profiles with topics of individual interest, assembles a content material from various Web sites according to the topics, and transmits the content to a subscriber's user terminal on subscriber's request over a wireless digital network. Lumelsky provides for the assembling of content material according to the subscriber's profile stored at the PRSS, for providing the content material to the user terminal.

However, as should be apparent from claims 1 and 11, the present invention is not directed to the assembling of content material at cache servers for providing the WWW information to a mobile computer.

In claim 1, a selected WWW information for a mobile computer is cached in one or more cache servers located nearby the mobile computer, whereby the cache servers are selected and controlled to cache the selected WWW information by a management unit provided separately from the cache servers, whereby the cache servers cache and provide the selected WWW information to the mobile computer. In this way, it becomes possible for the mobile computer to access the specific information relevant for the mobile computer from a nearby cache server faster, even at a location that the mobile computer has recently moved to.

In this regard, Lumelsky fails to disclose or suggest anything remotely related to providing such a management unit which functions to receive a message from the mobile computer, select the cache servers located nearby the mobile computer among a plurality of cache servers provided in the system, and manage the cached contents of the selected cache servers according to such a message. Accordingly, Lumelsky fails to disclose or suggest the management unit of claim 1.

Also, please note that Lumelsky merely discloses the use of a cache 212 for the purpose of speeding up the system performance of the server by taking advantage of a user's common interest, i.e., for the benefit of the server (see col. 20, lines 25-52 of Lumelsky). In contrast, the system of claim 1 provides a plurality of cache servers primarily for the benefit of a user of a mobile computer in a sense that the cache servers located nearby the mobile computer can be found among these plurality of cache servers, regardless of where the mobile computer moves to (assuming of course that the mobile computer remains within a region in which these plurality of cache servers are provided). Therefore the motivation for and the manner of using the cache servers are totally different in the present invention and Lumelsky.

Furthermore, please note that claim 11 recites an alternative system which functions substantially differently from the system of claim 1, whereby the Office Action only addresses the system recited in claim 1, and fails to address the system recited in claim 11.

In claim 11, the selected WWW information for an information provider is cached in one or more cache servers located within a geographic range defined for the information provider. In this way, when the information provider wishes to distribute some specific information only within some specific geographic range, this specific information can be cached in the cache servers within this specific geographic range, such that any mobile computer which moves within this geographic range will access the cached information. From such a system, the specific information provided by the information provider is more likely to be

viewed by the user of the mobile computer which comes into this specific geographic range.

Note that the system of claim 11 is designed mainly for the benefit of the information provider, unlike the system of claim 1 which is designed mainly for the benefit of the user or the mobile computer.

In this regard, Lumelsky fails to disclose or suggest anything remotely related to caching of information in cache servers located within the geographic range specified by the information provider. Accordingly, Lumelsky fails to disclose or suggest the management unit of claim 11.

The same argument also applies to the dependent claims 2-10 and 12-15 of claims 1 and 11, as well as method claims 16 and 17 corresponding to claims 1 and 11, management device claims 18 and 19 corresponding to claims 1 and 11, mobile computer claims 20-21 corresponding to claim 1, cache server claims 22 and 23 corresponding to claims 1 and 11, and service providing method claims 24 and 25 corresponding to claims 1 and 11, as well as claim 26 which depends from claim 25.

Note in particular that Lumelsky fails to disclose or suggest anything remotely related to a caching service providing method as recited in claim 24, where the specific user is registered as a premier user and the caching service according to a message received from the user as recited in claim 1 is provided to this premier user, or as recited in claim 25, where the specific information provider is registered as a premier sponsor and the caching service according to the geographic range defined for the information provider as recited in claim 11 is provided to this premier sponsor,

The presently pending dependent claims are also patentable for the specific features recited in those claims, beyond the reasons given above with respect to their respective base claim. For example, claim 26 recites that another information provider is registered as a non-premier sponsor in the information delivery system, whereby a first information provider has been registered as a premier sponsor (as recited in claim 25). According to claim 26,

one or more cache servers located within a geographic range defined for said another information provider are selected, and the one or more cache servers are controlled to cache selected WWW information selected for said another information provider. Furthermore, according to claim 26, a number of the cache servers that are updated with information of the premier sponsor is greater than a number of the cache servers that are updated with information of the non-premier sponsor. Thus, the premier sponsor is treated preferentially with respect to the number of cache servers that are utilized to stored its information to be sent to the mobile terminal.

The Office Action incorrectly asserts that column 19, line 15 to column 20, line 49 and column 23, lines 13-29 of Lumelsky disclose the features recited in claim 26. Rather, column 19, line 15 to column 20, line 49 of Lumelsky merely describes that the PRSS (the server) stores a user's profile, so as to determine the user's topic categories of interest, whereby the PRSS retrieves information related to a user's interests from a data repository 401 and delivers that information to the user. There is no disclosure or suggestion in this portion of Lumelsky as to the treating of one information provider preferential with respect to another information provider, and furthermore there is no disclosure or suggestion in Lumelsky of assigning more cache servers to one information provider as compared to another information provider. Also, column 23, lines 13-29 of Lumelsky merely describes that information is provided to a user so as to improve reliability, decrease cost, achieve a low voice compression ratio, and use store-and-forward technology. There is no disclosure or suggestion in this portion of Lumelsky as to the treating of one information provider preferential with respect to another information provider, and furthermore there is no disclosure or suggestion in Lumelsky of assigning more cache servers to one information provider as compared to another information provider.

Therefore, claim 26 is patentable for this additional reason.

With respect to dependent claim 7, that claim recites that either the mobile computer or the management unit predicts another one or more cache servers to be selected when a need to change cache servers nearby the mobile

computer due to moving of the mobile computer is predicted to arise, whereby the management unit controls the other one or more cache servers to cache the selected WWW information according to the result of prediction. The Office Action incorrectly asserts that column 8, lines 38-60 and column 20, lines 25-63 of Lumelsky disclose these features. However, column 8, lines 38-60 of Lumelsky merely describes one or more PRSS (servers) which store user profiles with their topics of interest, and whereby content is transmitted from the PRSSs to the user terminal based on subscriber requests. There is nothing in this portion of Lumelsky related to predicting of a moving location of a mobile computer. Also, column 20, lines 25-63 of Lumelsky merely describes that each PRSS maintains a cache for storing information to be sent to various users, and it also describes ways by which that information is stored in the cache. While this portion of Lumelsky discloses that the PRSS may anticipate which information may be of interest in the near future and retrieve such data so that it may become available at the PRSS upon user request, this is not the same as predicting a moving location of a mobile computer in order to determine which of a plurality of cache servers are to cache selected WWW information to be provided to the mobile computer.

Accordingly, claim 7 is patentable for this additional reason.

In conclusion, the rejection of claims 1-26 based on Lumelsky should be reconsidered and withdrawn.

Therefore, since there are no other objections or rejections raised in the Office Action, Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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